

## Radiotherapy in Italy for non-small cell lung cancer: patterns of care survey

Sara Ramella<sup>1</sup>, Ernesto Maranzano<sup>2</sup>, Paolo Frata<sup>3</sup>, Cristina Mantovani<sup>4</sup>, Grazia Lazzari<sup>5</sup>, Claudia Menichelli<sup>6</sup>, Piera Navarria<sup>7</sup>, Stefano Pergolizzi<sup>8</sup>, and Fabrizio Salvi<sup>9</sup>

<sup>1</sup>Radiation Oncology, Campus Bio-Medico University, Rome; <sup>2</sup>Radiation Oncology Center S. Maria Hospital, Terni; <sup>3</sup>Radiation Oncology, Istituto del Radio, Spedali Civili, Brescia University, Brescia; <sup>4</sup>Radiation Oncology Unit, University of Torino, S. Giovanni Battista Hospital, Turin; <sup>5</sup>Radiation Oncology Unit, S.G. Moscati Hospital, Taranto; <sup>6</sup>Clinical Radiobiological Institute, University of Firenze, Florence; <sup>7</sup>Department of Radiation Oncology, Istituto Clinico Humanitas, Rozzano, Milan; <sup>8</sup>Operative Unit of Radiotherapy, San Vincenzo Hospital, Taormina; <sup>9</sup>Radiation Oncology, Ospedale Bellaria, Bologna, Italy

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### ABSTRACT

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**Aims and background.** Surveys in clinical practice are useful to find how current clinical approaches follow recommendations from evidence-based medicine, to stimulate discussion in a multidisciplinary team, and to hypothesize collaborative multicentric trials. To assess management strategies for the use of radiotherapy in the treatment of lung cancer in Italy, in 2009, the Italian Society of Radiation Oncology Lung Cancer Study Group proposed the survey to all Italian radiation oncology institutions. Results were compared with literature data and international reports.

**Study design.** Questionnaires on patterns of care of non-small cell lung cancer were sent to radiation oncology centers active at June 2009 and evaluated data recorded in 2008.

**Results.** A total of 65 of 143 Italian centers responded to the questionnaire. The responding centers reflect the distribution of radiotherapy centers throughout the country. Of the treated patients, 55.2% were stage III, and most cases had a good performance status. FDG-PET was routinely used by 51% of centers for diagnostic and contouring phases. Postoperative radiotherapy was prescribed to pN1 and pN2 patients in 42.2% and 98.5%, respectively. The possible use of neo-adjuvant concomitant chemoradiation was declared by 70% of responders. A sequential chemoradiation approach was actually used in 43.6% of cases, induction chemotherapy followed by concomitant radiochemotherapy in 42.4%, and upfront concomitant radiochemotherapy in only 14%. In 53% of the institutions, patients have a clinical examination by a radiation oncologist only after the beginning of chemotherapy and in 82.4% of cases they have already received 2-4 cycles of chemotherapy. Most of the institutions exclude elective nodal irradiation from routine application. Total dose and fractionation in adjuvant, neoadjuvant, curative and palliative settings confirm literature data. There were significant differences in treatment planning constraints applied for lung, esophageal and cardiac tissues. Of the responding centers, 41% had stereotactic therapy for primary inoperable lung cancer and for metastatic lesions.

**Conclusions.** In Italy, daily practice differs in some ways from the evidence supported by the results of meta-analyses/clinical trials as regards concurrent chemoradiation approaches. It could be postulated that there is an urgent need for groups that collaborate with the other societies involved in the treatment of non-small cell lung cancer in order to offer the best therapy to our patients.

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**Key words:** lung cancer, radiotherapy, survey.

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**Correspondence to:** Sara Ramella, Via E. Longoni 49, 00155, Rome, Italy. Tel +39-06-2254-1416-420; fax +39-06-2254-1433; e-mail s.ramella@unicampus.it

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